

Three Additional New Genera and two Replacement Names for Northeastern Pacific Prosobranch Gastropods

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ABSTRACT

Three new genera or subgenera and two replacement names for species homonyms are proposed. New genus level taxa: Trochidae: *Costomargarites*, new subgenus of *Margarites*; type species *Trochus costalis* Gould, 1841. Calyptraeidae: *Grandicrepidula*, new subgenus of *Crepidula*; type species *Crepidula grandis* Middendorff, 1849. Turridae, Crassispirinae: *Pseudotaranis* new genus; type species *Mangelia (Taranis) strongi* Arnold, 1903. New names for homonyms: Trochidae: *Margarites (Costomargarites) baxteri*, new name for *Margarites (Pupillaria) rudis* Dall, 1919, not *Margarita groenlandica* var. *rudis* Mörch, 1869. Turridae: *Leucosyrinx kantori*, new name for *Antiplanes amyceus* Dall, 1919, not *Leucosyrinx amyceus* Dall, 1919.

Key words: Mollusca; Prosobranch gastropods; Trochidae; Calyptraeidae; Turridae; new species; new names.

INTRODUCTION

This paper follows a previous paper (McLean, 1995) with the same objective—to make some generic level names available for other work in progress. Additionally, the opportunity is taken to provide replacement names for two homonyms.

NEW GENUS LEVEL TAXA

Family TROCHIDAE Rafinesque, 1815

Subfamily MARGARITINAE Stoliczka, 1868
Costomargarites McLean, new subgenus

Type species: *Trochus costalis* Gould, 1841.

Included species: Type species [Arctic, North Atlantic and North Pacific] and *Trochus ochotensis* Philippi, 1846 [Northwestern Pacific]. The complex synonymy for the type species was outlined by Abbott (1974:36). The juvenile shell was illustrated by Pilsbry (1889, pl. 60, figs. 27, 28).

Diagnosis: Subgenus of *Margarites* in which early teleoconch sculpture is axial rather than spiral.

Remarks: Sculpture of typical species of *Margarites* and species of other available subgenera of *Margarites* is spiral, to the exclusion of axial sculpture altogether except for growth increments. The strong axial sculpture of juvenile shells of *Margarites (Costomargarites) costalis* suggests a closer resemblance to *Solariella obscure* (Couthouy, 1838) than to other species of *Margarites*. The species in which axial sculpture dominates the morphology of the early teleoconch (and may or may not be expressed in the mature shell) need to be distinguished at least at the subgeneric level. For many years I have been surprised that this common Arctic species has not been made the type species of a subgenus, a gap that I hereby fill.

Family CALYPTRAEIDAE Lamarck, 1809

Grandicrepidula McLean, new subgenus

Type species: *Crepidula grandis* Middendorff, 1849.

Included species: Type species [Boreal Pacific]; *Crepidula princeps* Conrad, 1856 [early Miocene through middle Pliocene of southern California]; *C. excavate* (Broderip, 1834) [Panamic]; *C. maculosa* Conrad, 1846 [Western Atlantic]; *C. convexa* Say, 1822 [Western Atlantic].

Diagnosis: Beak excavated, projecting posteriorly on right side; septal margin nearly straight, extending farther forward on left side; single muscle scar on right side, rectangular or chevron-shaped

Remarks: Hoagland (1977) reviewed the Recent and fossil species of *Crepidula*, treating them in alphabetical order, while not using the available subgenera. Surprisingly, none of the 14 available taxa (see Hoagland, 1977: 399) has a type species in which the septum projects on the right side. It is evident that this condition is not ambiguous—all species illustrated by Hoagland can be assigned on the basis of this character. These diagnostic characters were mentioned and show clearly in Hoagland's drawings of septal configuration (figure 2B, *C. excavate*; figure 2F, *C. grandis*). Moreover, the five species assigned above key out together in Hoagland's key

to the species (page 363, couplets 16-18). Contrary to Hoagland's assertion that the division of *Crepidula* into subgenera is not warranted, I find it useful to base subspecific distinctions on the morphology of the septum, particularly when considering fossil species. In my opinion the remaining species can also be assigned to the available taxa on shell characters.

Family TURRIDAE Swainson, 1840

Subfamily CRASSISPIRINAE Morrison, 1966

Pseudotaranis McLean, new genus

Type species: *Mangelia (Taranis) strongi* Arnold, 1903.

Included species: Type species and the more slender *Antiplanes hyperia* Dall, 1919a (p. 35, pl. 9, fig. 6). The type species was described from the Lower Pleistocene of San Pedro, California; it was also illustrated by Grant & Gale (1931:572, pl. 26, fig. 37); *Borsonia inculta* Moody, 1919 (p. 54, pl. 1, figs. 2a, 2b) is a synonym. The two species (*Pseudotaranis strongi* and *P. hyperia*) live offshore in moderately deep water (100-400 m).

Diagnosis: Shell small (length to 17 mm), spire high, anterior canal short, whorls 6. Axial sculpture lacking, spiral sculpture of two cords emerging on teleoconch and three cords on base; anal sinus shallow, at periphery and coinciding with uppermost cord; lip not projecting. Protoconch paucispiral, of 1.2 low, rounded whorls. Radula of marginal teeth attached to membrane; teeth of long, flat type.

Remarks: Authors prior to 1971 used *Taranis* Jeffreys, 1870 for the type species, but the presence of a radula precludes placement in that genus, in which the radula is lacking (see Powell, 1966:55). Earlier (McLean, 1971:120, fig. 40), I illustrated the radula of *strongi* and assigned it to *Antiplanes (Rectisulcus)*, a genus now in the subfamily Cochlespirinae, according to Taylor *et al.* (1993). *Pseudotaranis* differs in having the sinus more shallow, the lip less protracted, the anterior canal shorter, and the protoconch more compressed. The radula lacks the vestigial rachidian tooth and the marginals are not of the bifurcated type indicated for *Antiplanes* by Kantor and Sysoev (1991:122). The flat morphology of the lateral teeth agrees with the subfamily Crassispirinae, as defined by Taylor *et al.* (1993). Thus, the radular differences place *Antiplanes* and *Pseudotaranis* in different turrid subfamilies. However, on shell characters, *Pseudotaranis* is atypical of Crassispirinae in not having pronounced callus developed near the anal notch.

NEW NAMES FOR SPECIES LEVEL HOMONYMS

Family TROCHIDAE Rafinesque, 1815

Subfamily MARGARITINAE Stoliczka, 1868

Margarites (Costomargarites) baxteri McLean, new name for *Margarites (Pupillaria) rudis* Dall, 1919b:364, not *Margarita groenlandica* var. *rudis* Mörch, 1869:23.

Remarks: *Margarites (Costomargarites) baxteri* was figured by Dall (1921:179, pl. 18, fig. 13, 14) and by Kosuge (1972, pl. 2, fig. 5), but has otherwise been ignored in the literature. It will be treated by me in work in preparation as a geographic subspecies (in the Gulf of Alaska) of the boreal *M. (Costomargarites) costalis* (Gould, 1841). The new name honors the late Rae Baxter for his efforts at reviewing Alaskan mollusks, cut short by his untimely death in 1991.

Family TURRIDAE Swainson, 1840

Subfamily COCHLESPIRINAE Powell, 1942

Leucosyrinx kantori McLean, new name for *Antiplanes amycus* Dall, 1919a (p. 36, pl. 11, fig. 5), not *Leucosyrinx amycus* Dall, 1919a (p. 5, pl. 3, fig. 7).

Remarks: The proposal of *Leucosyrinx kantori* remedies a problem of secondary homonymy that was initiated when Dall (1919a) described a species in *Antiplanes* that I now consider to be a true member of *Leucosyrinx* Dall, 1889. Dall (1919a) also proposed a species with the name *Leucosyrinx amycus*. Note that both species were described in the same paper. Previously (McLean *in* Keen, 1971:713), I placed *Leucosyrinx amycus* Dall, 1919 in the synonymy of *Aforia goodei* (Dall, 1890). The new name honors Yuri Kantor for his recent work on turritiform gastropods.

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